

**EXPRESSION VECTORS ENCODING EPITOPES OF
TARGET-ASSOCIATED ANTIGENS AND METHODS FOR THEIR DESIGN**

Abstract of the Disclosure

The invention disclosed herein is directed to methods of identifying a polypeptide suitable for epitope liberation including, for example, the steps of identifying an epitope of interest; providing a substrate polypeptide sequence including the epitope, wherein the substrate polypeptide permits processing by a proteasome; contacting the substrate polypeptide with a composition including the proteasome, under conditions that support processing of the substrate polypeptide by the proteasome; and assaying for liberation of the epitope. The invention further relates to vectors including a housekeeping epitope expression cassette and also vectors including epitope cluster regions. The housekeeping epitope(s) can be derived from a target-associated antigen. The housekeeping epitope can be liberatable, that is capable of liberation, from a translation product of the cassette by immunoproteasome processing. The invention also relates to a method of activating a T cell comprising contacting a substrate polypeptide with an APC and contacting the APC with a T cell.

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